

**WALK/BIKE TO WORK SURVEY RESULTS**  
**Skagit Valley Hospital**  
October 2009

**A Cooperative Effort by:**  
Skagit County Health Department  
Active Community Task Force  
Skagit County Healthy Communities Project

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## Executive Summary

The Skagit County Health Department in cooperation with the Active Community Task Force and the Skagit County Healthy Communities Project received a grant to increase by 10% the number of employees at Skagit Valley Hospital who participate in physical activity for at least 150 minutes per week. They proposed to focus on increasing biking and walking to work – or in combination with transit - in order to reach this goal.

### *Baseline*

A survey was developed to gather baseline data. All Skagit Valley Hospital employees were invited to participate. Of the 1273 employees who were asked to respond to the survey, 379 employees began the survey, and 347 completed it. Twenty-one percent (21%) of survey respondents indicated that they “always” meet the standard of participating in physical activity for at least 150 minutes per week. To meet the goal of the project, the percentage of respondents who always meet the standard must increase from 21% to 31%.

### *Likelihood of change with respect to walking or biking to work*

The survey was designed to identify those who are in the contemplation stage of change with respect to walking or biking to work. The contemplation stage is defined as “Acknowledging that there is a problem but not yet ready or sure of wanting to make a change” (Prochaska, 1997). Sixty-five people (17.2%) fall into the contemplation stage of change with respect to biking and walking to work. It is these 65 people for whom a focus on walking or biking would be relevant.

Survey participants were asked to what degree the availability of various resources would influence their decision to bike or walk to work. Of those who were categorized as being in the contemplation stage of change, 33 people said a financial incentive of \$20 per month; 29 said showers; 29 people indicated locked and covered bike storage; and 29 people identified guaranteed back-up transportation for emergencies.

Six people in the contemplation stage said that if they attended a walking commuter class they would be very likely to start walking to work. Twelve people said they would be somewhat likely to start walking to work.

With respect to biking, 4 people in the contemplation stage said that if they attended a biking commuter class they would be very likely to start biking to work. Nineteen people said they would be somewhat likely to start walking to work.

It appears that there are some people for whom a walking or biking to work program could move them from the contemplation stage of change to the active stage of change.

### *Alternative physical activity*

Seventy-five percent of the respondents (284 people) indicated that they live too far away to consider walking or biking to work; 4% have never thought about it; 10% occasionally think about it; 5% are interested; 2% intend to walk or bike to work within the next 6 months; 4% currently walk or bike to work.

Fifty-two percent (141 people) of those who occasionally meet the recommended levels of physical activity per week report that they are interested in increasing their activity level. These results indicate that there are some people for whom a walking or biking to work program may be effective. However, for many people, walking or biking to work is not a viable option or one they would consider.

While a large percentage of the respondents are not interested in walking or biking to work, 72% indicated that they are interested in increasing their activity level. These results suggest that it would be wise to enhance the proposed approach to increasing the percentage of employees at Skagit Valley Hospital who meet the recommended standard for physical activity by including options in addition to walking and biking to work.

## Background

The Skagit County Health Department (SCHD) has been awarded a grant to reduce the risk of chronic disease and to have healthier employees and residents. This quality improvement project builds off of the Active Community Task Force (ACT) and Skagit County Healthy Communities Project partnering around increasing active community environments, connectivity and safety for walking and biking in Skagit County. These two groups believe that there is a group of residents that have considered bicycling or walking to work but who have a high level of fear and lack of experience, which holds them back from acting on their interest.

The stated goal of this project is to increase the percentage of adults in our community who participate in physical activity for at least 150 minutes per week by 10 percent. Due to budget and staff cuts at Skagit County Government, the project is currently limited to employees of Skagit Valley Hospital.

The goal is to be accomplished by working with Skagit Valley Hospital employees and:

1. Promoting walking and biking to and from work or in combination with transit.
2. By providing education on active transportation options and importance of physical activity for health.
3. Employing select encouragement strategies to motivate and support people in early to mid-stage adoption of regular physical activity habit.

The initial hypothesis is that individuals who are interested in increasing physical activity, biking and walking, and who are at pre-contemplation, contemplation or active Behavioral Stage of Change would be more likely to try biking or walking to work when they have participated in an education program and receive encouragement.

In an effort to measure progress, the following data are to be collected:

### Short Term Measures

1. Obtain existing baseline data, or create and execute data collection plan to understand current levels of physical activity, physical activity modes utilized and Behavioral Stage of Change rating:
  - a. Record the number of Skagit Valley Hospital employees and possibly additional worksites' employees who complete survey.
  - b. Report the number of Skagit Valley Hospital employees and possibly additional worksites' employees who meet physical activity recommendations.
  - c. Report the number of employees and participants who currently include active transportation to meet the recommended activity levels.
  - d. Determine Behavior Stage of Change rankings for participants.
  - e. Record perceived barriers for adoption of active transportation activities and physical activity.

#### Mid Term Measures

1. Percentage of employees/participants who participate in bicycle and commuting education program.
2. Percentage of participants who participate in education and bike or ride to or at work.
3. Percentage of participants who participate in education and increase bicycling and walking but not to work.
4. Percentage of participants that feel their knowledge and safety are increased as a result of participating in the education.
5. Percentage of participants whose Behavioral Stage of Change ranking is increased at least one level.

#### Long Term Measures

1. Number of employees who meet the physical activity recommendation.
2. Number of employees who include active transportation to meet the physical activity recommendations.

#### Methodology

All Skagit Valley Hospital employees were invited to respond to the bike/walk to work survey via Internet. Employees also received a prompt with a link to take the survey in the Skagit Views employee newsletter. The newsletter is available electronically and in hard copy. An announcement with the link was posted on the employee intranet for the entire time the survey was live. All employees with access to the intranet have an opening page with these announcements on them daily when signing on.

An email communication was distributed telling staffs the purpose of the survey and the importance of their participation. They were given one and one half weeks to complete the survey, and were given work time to complete the task. They were given several email reminders encouraging them to complete the survey.

Analysis of the survey results uncovered a weakness in the design. It is recommended that future surveys establish a clearer relationship between research questions and specific questions on the survey to ensure that all relevant questions are addressed. For example, little can be ascertained from the survey regarding the role of transit in combination with biking and walking to work.

## Key Findings

Below are key findings as they relate to the short-term measures outlined in the project proposal.

### **Number of Skagit Valley Hospital employees and possibly additional worksites' employees who complete survey.**

Skagit Valley Hospital employs 1273 people. All employees were given the opportunity to respond during work time to complete an on-line survey. There were 379 employees who began the survey (30%), and 347 (27%) who completed the survey. While 30% of the employees responded to the survey, this is not a random sample. It is not known on what basis respondents made their choice to participate or not to participate leaving open the possibility of response bias.

### **Number of Skagit Valley Hospital employees and possibly additional worksites' employees who meet physical activity recommendations.**

When asked, "How often do you meet the recommended levels of physical activity per week (2.5+ hours per week of moderate to vigorous activity)?" Twenty-one percent of respondents indicated "always." The stated goal of this project is to increase the percentage of adults in our community who participate in physical activity for at least 150 minutes per week by 10 percent. To meet this goal, the percentage of respondents must increase to 31%.

### **Number of employees and participants who currently include active transportation to meet the recommended activity levels.**

Sixteen individuals (4%) reported that they walk or bike to work. Of those 16 people, 4 people reported that they always meet the recommended levels of physical activity per week. Seven people frequently meet the recommendations, and the remaining 5 people occasionally meet the weekly recommendations.

### **Existing Behavior Stage of Change rankings for participants is determined.**

The project is based on a change theory developed by James O. Prochaska of the University of Rhode Island and colleagues, with a focus on the precontemplation, contemplation and active stages.

The stages of change are defined below (Prochaska, 1997):

- Precontemplation (Not yet acknowledging that there is a problem behavior that needs to be changed)
- Contemplation (Acknowledging that there is a problem but not yet ready or sure of wanting to make a change)
- Preparation/Determination (Getting ready to change)
- Action/Willpower (Changing behavior)
- Maintenance (Maintaining the behavior change) and

- Relapse (Returning to older behaviors and abandoning the new changes)

Two questions were asked to establish which participants fell into the precontemplation, contemplation or active stages of change. The first question asked if participants were interested in increasing their activity level in general. The second question addressed level of interest specifically with respect to walking and biking to work.

Survey participants were asked, “Are you interested in increasing your activity level?” They were given the options of “yes,” “neutral,” and “no.”

Precontemplation: Six percent (6%) of the respondents said they were not interested in increasing their activity level.

Contemplation: Seventy-two percent (72%) of respondents said, “yes,” they were interested in increasing their activity level, with the remaining 22% giving a “neutral” response.

The second question associated with behavior change stages asked participants to indicate their level of interest specifically in walking or biking to work. They were asked, “Which statement best describes you?”

Precontemplation: Seventy-five percent of the respondents (284 people) indicated that they live too far away to even consider walking or biking to work. Four percent (4%, or 14 people) have never thought about it.

Contemplation: 10% (37 people) occasionally think about it; 5% (20 people) are interested; 2% (8 people) intended to walk or bike to work within the next 6 months.

Active: 4% (16 people) currently walk or bike to work.

Six people in the contemplation stage said that if they attended a walking commuter class they would be very likely to start walking to work. Twelve people said they would be somewhat likely to start walking to work.

With respect to biking, 4 people in the contemplation stage said that if they attended a biking commuter class they would be very likely to start biking to work. Nineteen people said they would be somewhat likely to start walking to work.

### **Perceived barriers for adoption of active transportation activities and physical activity**

Survey participants were asked to identify barriers to walking or biking to work. They were invited to mark all options that applied. Of the 339 non-active commuters who answered the question, 52% cited weather; 49% said it would take too much time; 40% did not want to be sweaty at work; 39% were worried about safety in traffic; 31% do not own a bike/equipment that is suitable to ride to work; and 30% cited the time of their shift.

Active commuters were also asked to identify barriers they had encountered before they began biking or walking to work. The 15 people who responded to this question had very similar responses to those who are non-active commuters. Nine people (60%) cited the weather; 5 people (33%) were worried about traffic safety; 5 people (33%) cited the time of their shift; and 2 people (13%) did not want to be sweaty at work, and 2 more people (13%) said it took too much time.



## Survey Results

### 1. Age:

What is your age?:		
Answer Options	Response Percent	Response Count
Under 25	2.9%	11
25-34	18.7%	71
35-44	25.9%	98
45-54	27.7%	105
55-64	22.7%	86
65 or over	2.1%	8
<b>answered question</b>		<b>379</b>
<b>skipped question</b>		<b>0</b>

Survey participants were fairly evenly distributed between the ages of 25 and 64. This group represented 95% of the respondents while 2.9% were under the age of 25 and 2.1% were over the age of 65.

### 2. Gender:

Gender:		
Answer Options	Response Percent	Response Count
Male	15.3%	58
Female	84.7%	321
<b>answered question</b>		<b>379</b>
<b>skipped question</b>		<b>0</b>

Respondents were primarily female (85%). This is similar to the population of the hospital who were invited to participate in the survey (81% female).

### 3. Activity level at work

In your job, are you predominately:		
Answer Options	Response Percent	Response Count
Mostly sedentary	15.3%	58
Sitting some and walking a little	16.9%	64
Sitting and walking equally	16.6%	63
Walking a lot and sitting a little	37.7%	143
Always active	13.5%	51
<b>answered question</b>		<b>379</b>
<b>skipped question</b>		<b>0</b>

Approximately 38% of the survey participants reported that they walked a lot and sat a little during their workday. Almost 68% reported that they walked at least as much as they sat throughout the day. The remaining 32% indicated that they were primarily sedentary or walked only a little.

#### 4. Hours

How many hours a week do you work at Skagit Valley Hospital?		
Answer Options	Response Percent	Response Count
10 or under	3.7%	14
11-24	11.9%	45
25-35	28.5%	108
36 or more	55.9%	212
<b><i>answered question</i></b>		<b>379</b>
<b><i>skipped question</i></b>		<b>0</b>

A majority of those who completed the survey (56%) worked more than 36 hours each week. Forty percent (40%) of the employees worked between 11 and 35 hours a week. Only 4% worked less than 10 hours per week.

#### 5. Method of commuting

How do you usually commute to work?		
Answer Options	Response Percent	Response Count
Car	94.2%	357
Carpool	2.9%	11
Walk	2.4%	9
Bike	0.0%	0
Bus	0.5%	2
Bus and bike	0.0%	0
<b><i>answered question</i></b>		<b>379</b>
<b><i>skipped question</i></b>		<b>0</b>

Ninety-four percent of the respondents indicated that they usually drive their car to work. The percentage increases to 97% when those who carpool are also included in the equation. Only 2.4% usually walk to work, with no one reporting that they usually bike to work.

6. Miles to Work

How many miles do you travel to work?		
Answer Options	Response Percent	Response Count
Less than 1	4.5%	17
1-3	14.0%	53
3-5	6.3%	24
5-10	11.3%	43
10-20	28.0%	106
Over 20	35.9%	136
<b>answered question</b>		<b>379</b>
<b>skipped question</b>		<b>0</b>

Twenty five percent (25%) of the respondents travel 5 or fewer miles to the hospital. Eleven percent (11%) travel between 5 and 10 miles, while the remaining 64% travel 10 or more miles to work.

7. Frequency of physical activity

How often do you meet the recommended levels of physical activity per week (2.5+ hours per week of moderate to vigorous activity)?		
Answer Options	Response Percent	Response Count
Never	6.6%	25
Occasionally	43.3%	164
Frequently	29.0%	110
Always	21.1%	80
<b>answered question</b>		<b>379</b>
<b>skipped question</b>		<b>0</b>

Forty-three percent of the respondents reported that they occasionally meet the recommended levels of physical activity per week. Seven percent (7%) indicated that they never meet the recommended levels. Twenty-one percent reported that they always meet the recommended levels. One half of the respondents (50%) reported that they meet the recommended levels frequently or always.

8. Hours of physical activity

How many hours per week are you moderately to vigorously active?		
Answer Options	Response Percent	Response Count
0	2.6%	10
Less than one hour	11.6%	44
1-2 hours	28.2%	107
3-4 hours	31.4%	119
5 hours or more	26.1%	99
<b>answered question</b>		<b>379</b>
<b>skipped question</b>		<b>0</b>

Fifty-eight percent (58%) say they are moderately to vigorously active for at least 3 hours each week. This means that, according to survey results, a full 58% of respondents meet the recommended level of physical activity (2.5+ hours per week of moderate to vigorous activity). This is higher than the percentages reported in the general population (46% - per CDC in 2003). It is possible that hospital staffs are more active than the general population; those who responded to the survey may be more active than those who chose not to respond to the survey; or, there may be a social desirability bias, that is, respondents may be over-reporting, believing they are giving the “right” answer.

9. Values towards physical activity

Which best describes your values towards physical activity?		
Answer Options	Response Percent	Response Count
I think physical activity is important and I always perform the recommended amount	25.9%	98
I think physical activity is important and I occasionally perform the recommended amount	39.8%	151
I think physical activity is important but have not been able to fit it into my day	34.3%	130
I don't think physical activity is important to my health	0.0%	0
<b>answered question</b>		<b>379</b>
<b>skipped question</b>		<b>0</b>

All of the survey respondents indicated that they believe physical activity is important. Seventy-four percent indicated that they were not meeting the recommended level of activity, despite their belief in its importance.

According to responses to this question, 26% of respondents always perform the recommended levels of physical activity. This is within 3 percentage points of those who responded in a similar fashion in question number 7.

10. Interest in increasing activity levels

<b>Are you interested in increasing your activity level?</b>		
<b>Answer Options</b>	<b>Response Percent</b>	<b>Response Count</b>
Yes	71.8%	272
Neutral	22.2%	84
No	6.1%	23
<b><i>answered question</i></b>		<b>379</b>
<b><i>skipped question</i></b>		<b>0</b>

Seventy-two percent of respondents expressed an interest in increasing their activity level. Six percent said they were not.

11. Behavioral stages of change

<b>Which statement best describes you? (Check one)</b>		
<b>Answer Options</b>	<b>Response Percent</b>	<b>Response Count</b>
I live too far away to consider walking or biking to work		284
I have never thought about walking or biking to work		14
<b>Precontemplation stage total</b>	<b>79%</b>	<b>298</b>
I occasionally think about walking or biking to work		37
I am interested in walking or biking to work		20
I intend to walk or bike to work within the next 6 months		8
<b>Contemplation stage total</b>	<b>17.2%</b>	<b>65</b>
I walk or bike to work		16
<b>Active stage total</b>	<b>4.2%</b>	<b>16</b>
<b><i>Answered question</i></b>		<b>379</b>
<b><i>Skipped question</i></b>		<b>0</b>

Seventy-five percent of survey respondents have judged that they live too far away from work to consider walking or biking to work. Four percent of the respondents report that they currently walk or bike to work.

Sixty-five people (17.2%) fall into the contemplation stage with respect to biking and walking to work.

## Active Commuters

Active commuters were asked to respond to questions 12-16. There were 15 people who responded to these questions. While the numbers are not large enough for generalizations, they are reported below as the responses of these individuals.

### 12. Motivators: Active-commuters

<b>Which of these factors are your most important motivators for biking or walking to work? (Select your top 3)</b>		
<b>Answer Options</b>	<b>Response Percent</b>	<b>Response Count</b>
Reduce stress	26.7%	4
It is better for the environment	46.7%	7
It improves my health and wellbeing	86.7%	13
To save money	13.3%	2
So I don't have to spend time later working out	0.0%	0
It is faster than driving or taking the bus	26.7%	4
Weight management	6.7%	1
Feeling better overall	40.0%	6
Other (please specify)		2
<b>Answered question</b>		<b>15</b>
<b>Skipped question</b>		<b>364</b>

Several active commuters were motivated by health factors including health and wellbeing (13 people), feeling better overall (6) and reducing stress (4). Some were motivated by the positive impact on the environment (7). Very few to no respondents were motivated by weight management (1 person) or saving time on working out later.

### 13. Experience vs. expectations: Active-commuters

<b>How does your biking or walking experience compare to your initial expectations?</b>		
<b>Answer Options</b>	<b>Response Percent</b>	<b>Response Count</b>
My experience is much more challenging than I expected it to be	6.7%	1
My experience is more challenging than I expected it to be	6.7%	1
My experience is what I expected it to be	73.3%	11
My experience is easier than I expected it to be	0.0%	0
My experience is much easier than I expected it to be	13.3%	2
<b>Answered question</b>		<b>15</b>
<b>Skipped question</b>		<b>364</b>

Most of the active commuters (11 people) found their experience to match their expectations. Two people found it more challenging and two people found it easier.

14. Personal barriers: Active-commuters

<b>Before you began biking or walking to work, which of these were personal barriers? (Check all that apply)</b>		
<b>Answer Options</b>	<b>Response Percent</b>	<b>Response Count</b>
I did not own a bike/equipment suitable to ride or walk to work	6.7%	1
I was worried about traffic safety	33.3%	5
I did not know the safe travel routes to work	0.0%	0
I did not know easy travel routes to work	6.7%	1
I did not know how to fix my bike if it broke down or had a flat tire	13.3%	2
The weather was a barrier	60.0%	9
I did not want to be sweaty at work	13.3%	2
It took too much time	13.3%	2
I was too tired	0.0%	0
I was not healthy enough	0.0%	0
I picked up or dropped off people to/from work	0.0%	0
I picked up or dropped off kids	20.0%	3
The time of my shift	33.3%	5
I did not have a mentor or role model	0.0%	0
Other (please specify)		6
<b><i>answered question</i></b>		<b>15</b>
<b><i>skipped question</i></b>		<b>364</b>

Nine people indicated that the weather was a barrier for them before they began biking or walking to work. Five people worried about safety and five people found the time of their shift to be a barrier.

15. Motivation: Active-commuters

Active commuters were asked in an open-ended question what were the 3 most important factors that motivated them to begin walking or biking to work. Twelve people provided answers. Eight people cited a positive impact on physical health, five people cited mental health, five people cited the environment, four people cited their close proximity to the hospital, and three people stated that parking limitations motivated them to bike or walk to work.

16. Number of days of biking/walking to work: Active-commuters

<b>On average, how many days a week do you bike/walk to work?</b>		
<b>Answer Options</b>	<b>Response Percent</b>	<b>Response Count</b>
Everyday	40.0%	6
Most days	13.3%	2
Some days	26.7%	4
Occasionally	20.0%	3
<b><i>answered question</i></b>		<b>15</b>
<b><i>skipped question</i></b>		<b>364</b>

Eight active commuters bike/walk to work everyday or most days. Seven bike/walk to work some days or occasionally.

There were 339 people who identified themselves as non-active commuters and completed questions number 17-23.

17. Ability to walk to work: Non-active commuters

<b>Which best describes your belief in your ability to WALK to work?: (Check one)</b>		
<b>Answer Options</b>	<b>Response Percent</b>	<b>Response Count</b>
Physically, I do not believe I can walk to work	52.2%	177
Physically, I believe I might be able to walk to work	14.7%	50
Physically, I am confident I can walk to work	33.0%	112
<b><i>Answered question</i></b>		<b>339</b>
<b><i>Skipped question</i></b>		<b>40</b>

Fifty-two percent of non-active commuters believe they physically cannot walk to work. The remaining 48% believe they physically can or might be able to walk to work.

18. Ability to bike to work: Non-active commuters

<b>Which best describes your belief in your ability to BIKE to work?: (Check one)</b>		
<b>Answer Options</b>	<b>Response Percent</b>	<b>Response Count</b>
Physically, I do not believe I can bike to work	46.0%	156
Physically, I believe I might be able to bike to work	23.9%	81
Physically, I am confident I can bike to work	30.1%	102
<b><i>answered question</i></b>		<b>339</b>
<b><i>skipped question</i></b>		<b>40</b>

Forty-six percent of the non-active commuters believe they are not physically able to bike to work. There were a few more people (54%) who believe they physically can or might



be able to bike to work when compared to those who believe they physically can or might be able to walk to work (48%).

19. Barriers: Non-active commuters

<b>Are any of these factors reasons why you do not bike or walk to work? (Check all that apply)</b>		
<b>Answer Options</b>	<b>Response Percent</b>	<b>Response Count</b>
I do not own a bike/equipment that is suitable to ride to work	30.7%	104
I am worried about my safety in traffic	39.2%	133
I do not know the safe routes to work	10.3%	35
I do not know easy routes to work	6.5%	22
I would not know how to fix my bike if it broke down or had a flat tire	21.5%	73
I pick-up or drop-off people to/from work	3.8%	13
I pick-up or drop-off kids	14.2%	48
The weather is a barrier	51.6%	175
I do not want to be sweaty at work	40.4%	137
It would take too much time	48.7%	165
The commuting distance is too far	71.4%	242
I would be too tired	20.9%	71
I am not healthy enough	7.7%	26
The time of my shift	30.4%	103
Lack of a mentor or role model	1.2%	4
Other (please specify)		66
<b><i>answered question</i></b>		<b>339</b>
<b><i>skipped question</i></b>		<b>40</b>

Respondents were asked to check all that apply. The largest percentage of respondents (71%) cited distance as a barrier to biking or walking to work. Approximately half of the respondents reported that the weather (52%) and time (49%) were barriers. Concern for safety in traffic (39%) and being sweaty at work (40%) were the next most often cited barriers. Approximately one third of the respondents also indicated that they did not own a bike/equipment suitable to ride at work (31%) or found the time of their shift to be a barrier (30%).

20. Resources: Non-active commuters

<b>To what degree would the availability of the following resources influence your decision to bike or walk to work?</b>				
<b>Answer Options</b>	<b>Strongly</b>	<b>Neutral</b>	<b>Not at all</b>	<b>Response Count</b>
	45 (13.3%)	94 (27.7%)	200 (59.0%)	339
Additional bike racks	84 (24.8%)	87 (25.7%)	168 (49.6%)	339
Showers	74 (21.8%)	92 (27.1%)	173 (51.0%)	339
Locked and covered bike storage	29 (8.6%)	86 (25.4%)	224 (66.1%)	339
Assistance with planning trip route	52 (15.3%)	71 (20.9%)	216 (63.7%)	339
Financial assistance with transit pass	64 (18.9%)	86 (25.4%)	189 (55.8%)	339
Financial assistance for bike equipment or walking shoes	89 (26.3%)	81 (23.9%)	169 (49.9%)	339
Financial incentive of \$20 per month	63 (18.6%)	82 (24.2%)	194 (57.2%)	339
Commuting partner	102 (30.1%)	72 (21.2%)	165 (48.7%)	339
Guaranteed back-up transportation for emergencies				
<b><i>answered question</i></b>				<b>339</b>
<b><i>skipped question</i></b>				<b>40</b>

There were a few resources, which at least 20% of the non-active commuters strongly believe would influence their decision to bike or walk to work. These include guaranteed back-up transportation for emergencies (30%), a financial incentive of \$20 per month (26%), showers (25%), and locked and covered bike storage. One respondent, an RN, commented that she was told there were bike lockers available – but only doctors were allowed to use them. A large percentage of respondents (between 70% and 91%) indicated that the availability of these resources would have no influence or would have a neutral influence on their biking or walking decisions.

21. Opportunities at work: Non-active commuters

<b>How often do you have the opportunity to walk or bike at work instead of driving? (walk at lunch, bike to a meeting, etc.)</b>		
<b>Answer Options</b>	<b>Response Percent</b>	<b>Response Count</b>
Never	70.4%	236
Once a week	8.7%	29
2-4 times a week	14.9%	50
Daily	6.0%	20
<b><i>answered question</i></b>		<b>335</b>
<b><i>skipped question</i></b>		<b>44</b>

Thirty percent of non-active commuters reported that they have an opportunity at least once a week to walk or bike at work instead of driving.

22. Walking class or workshop: Non-active commuters

<b>To what degree would attending a walking commuter class or workshop increase your likelihood of walking to work? (Check one)</b>		
<b>Answer Options</b>	<b>Response Percent</b>	<b>Response Count</b>
I would be very likely to start walking to work	2.9%	10
I would be somewhat likely to start walking to work	6.2%	21
It would not influence my decision to walk to work	90.9%	308
<b><i>answered question</i></b>		<b>339</b>
<b><i>skipped question</i></b>		<b>40</b>

Although 91% of the respondents said a walking class or workshop would not influence their decision to walk to work, there were 10 people who said they would be very likely to start walking to work.

23. Biking class or workshop: Non-active commuters

<b>To what degree would attending a bike education class increase your likelihood of biking to work? (Check one)</b>		
<b>Answer Options</b>	<b>Response Percent</b>	<b>Response Count</b>
I would be very likely to start biking to work	2.4%	8
I would be somewhat likely to start biking to work	8.6%	29
It would not influence my decision to bike to work	89.1%	302
<b><i>answered question</i></b>		<b>339</b>
<b><i>skipped question</i></b>		<b>40</b>

The answers to this question are similar to the previous question: Eighty-nine percent of respondents said a biking class or workshop would not influence their decision to bike to work; there were 8 people who said they would be very likely to start walking to work.

### **Additional Analyses**

Additional analyses were conducted to determine whether responses to one question were correlated with responses to other questions. The questions and their responses are presented below.

*Questions:*

- Which statement best describes you (Behavioral Stage of Change)?
- How many miles do you travel to work?

<b>Stage of change by number of miles traveled to work</b>						
Answer Options	< 1 Miles	1-3 Miles	3-5 Miles	5-10 Miles	10-20 Miles	>20 Miles
<b>Pre-contemplation Stage</b>						
I live too far away to consider walking or biking to work	1	6	10	38	95	130
I have never thought about walking or biking to work	1	7	4	1	1	0
<b>Contemplation Stage</b>						
I occasionally think about walking or biking to work	4	22	6	3	2	0
I am interested in walking or biking to work	3	8	2	0	6	1
I intend to walk or bike to work within the next 6 months	1	4	1	0	1	1
<b>Active Stage</b>						
I walk or bike to work	7	6	1	1	1	0
<b>Answered question</b>						<b>375</b>
<b>Skipped question</b>						<b>0</b>

**Pre-contemplation stage**

There are 15 people who travel 3 or fewer miles to work who have either never thought about walking or biking to work or consider that distance too far for them to consider walking or biking to work. There are 14 people who travel between 3 and 5 miles who also judge that distance to be too far to consider walking or biking to work or have never thought about walking or biking to work.

**Contemplation stage**

There are 42 people who travel 3 or fewer miles to work who occasionally think about, are interested in, or intend to walk or bike to work. There are 9 more people who travel 3-5 miles to work who occasionally think about, are interested in, or intend to walk or bike to work.

**Active stage**

Most of the people who report that they walk or bike to work (13) travel 3 or fewer miles to work. The remaining 3 people travel between 3 and 20 miles.

An analysis was conducted to determine the relationship between the frequency with which respondents report that they meet physical activity recommendations and self reports of how far employees travel to work, their level of interest in increasing activity and their stage of change.

*Questions:*

- How often do you meet the recommended levels of physical activity per week (2.5+ hours per week of moderate to vigorous activity)?
- How many miles do you travel to work?

<b>Frequency of meeting physical activity recommendations by number of miles traveled to work</b>						
Answer Options	< 1 Miles	1-3 Miles	3-5 Miles	5-10 Miles	10-20 Miles	>20 Miles
<b>Frequency of activity</b>						
Never	2 12%	7 13%	1 4%	2 5%	5 5%	8 6%
Occasionally	8 47%	25 47%	12 50%	18 42%	43 41%	58 42%
Frequently	4 24%	12 23%	7 29%	12 28%	37 35%	38 28%
Always	3 18%	9 17%	4 17%	11 26%	21 20%	32 24%
Total	17	53	24	43	106	136
<b>Answered question</b>						<b>379</b>
<b>Skipped question</b>						<b>0</b>

The data do not support a correlation between the number of miles people travel to work and the frequency with which they meet physical activity recommendations.

*Questions:*

- How often do you meet the recommended levels of physical activity per week (2.5+ hours per week of moderate to vigorous activity)?
- Are you interested in increasing your activity level?

<b>Frequency of meeting physical activity recommendations by interest in increasing activity</b>			
Answer Options	<b>Interest in increasing activity</b>		
	<b>Yes</b>	<b>Neutral</b>	<b>No</b>
<b>Frequency of activity</b>			
Never	18 7%	7 8%	0 0%
Occasionally	141 52%	21 25%	2 9%
Frequently	73 27%	29 35%	8 35%
Always	40 15%	27 32%	13 57%
Total	272	84	23
<b>Answered question</b>			<b>379</b>
<b>skipped question</b>			<b>0</b>

Fifty-two percent (141 people) of those who occasionally meet the recommended levels of physical activity per week report that they are interested in increasing their activity level.

*Questions:*

- How often do you meet the recommended levels of physical activity per week (2.5+ hours per week of moderate to vigorous activity)?
- Which statement best describes you (Behavioral Stage of Change)?

<b>Behavioral stage of change by frequency of meeting physical activity recommendations</b>					
Answer Options	Never	Occasionally	Frequently	Always	Total
I live too far away to consider walking or biking to work	16	118	86	64	284
I have never thought about walking or biking to work	2	7	3	2	14
<b>Pre-contemplation Behavioral stage Total</b>	<b>18</b> <b>6%</b>	<b>125</b> <b>42%</b>	<b>89</b> <b>30%</b>	<b>66</b> <b>22%</b>	<b>298</b>
I occasionally think about walking or biking to work	7	19	7	4	37
I am interested in walking or biking to work	0	11	5	4	20
I intend to walk or bike to work within the next 6 months	0	4	2	2	8
<b>Contemplation Stage Total</b>	<b>7</b> <b>11%</b>	<b>34</b> <b>52%</b>	<b>14</b> <b>22%</b>	<b>10</b> <b>15%</b>	<b>65</b>
I walk or bike to work	0	5	7	4	16
<b>Active Stage Total</b>	<b>0</b> <b>0%</b>	<b>5</b> <b>31%</b>	<b>7</b> <b>44%</b>	<b>4</b> <b>25%</b>	<b>16</b>
<b>Answered question</b>					<b>379</b>
<b>Skipped question</b>					<b>0</b>

Those in the contemplation stage of change were most likely to report that they occasionally meet the recommendations for physical activity (52%, 34 people).

Fifty-two percent (141 people) of those who occasionally meet the recommended levels of physical activity per week report that they are interested in increasing their activity level.

### References:

Adult Participation in Recommended Levels of Physical Activity --- United States, 2001 and 2003. MMWR Weekly. December 2, 2005/ 54(47);1208-1212. Center for Disease Control. . <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5447a3.htm>

Prochaska JO, Velicer WF. "The transtheoretical model of health behavior change." Am J Health Promot 1997 Sep-Oct;12(1):38-48. Accessed 2009 Mar 18  
<http://www.uri.edu/research/cprc/Publications/PDFs/ByTitle/The%20Transtheoretical%20model%20of%20Health%20behavior%20change.pdf>